

REMARKS

Claims 1-19, 23-24, 30 and 36 are canceled.

Claims 20 and 21-22 are withdrawn.

Claims 26-29, 31-35, 37 and 41-53 are amended.

Claims 54-65 are presented as new claims.

Claims 38-40 are allowed.

Support for the amendment is found for example in the original claims and on page 2, lines 20-23, page 9, lines 15-22 and page 15, lines 26-34. Hence no issues of new matter are presented.

Accordingly, upon entry of the Amendment, claims 26-29, 31-35 and 37-65 will be all of the claims before the Examiner for examination.

I. Response to Claim Rejection under 35 U.S.C. § 101

On page 2 of the Office Action, claims 26-29 and 31-33 are rejected under 35 U.S.C. § 101 as the invention being directed to non-statutory subject matter in view of the amendments to the claims to recite "a baker's yeast product". As indicated on page 2 of the Office Action, the Examiner considers the amended claims to read on any product that may be formed from baker's yeast such as carbon dioxide and ethanol. In this regard, during the Interview, the

Examiner suggested amending the claims to recite "a composition comprising baker's yeast" to overcome this specific rejection.

Applicants respectfully submit that the claims 26-29, 31-35, 37 and 41-53 are amended herein to refer to a "baker's yeast composition" thereby obviating the rejection under 35 U.S.C. § 101. Applicants further submit that these claims recite that the composition is obtainable by a cultivation process comprising using as a starting strain a yeast strain selected from the group consisting of isolated yeast strains CNCM I-2421, CNCM I-2422 and isolated/recombinant baker's yeast strains obtainable by clean activation of PAD1 gene(s) in a strain of a baker's yeast which is resistant to stress caused by freezing. Since the starting strains used to make the claimed composition are allowed the composition is also allowable.

New claims 54-65 also refer to a baker's yeast composition and therefore the rejection under 35 U.S.C. § 101 does not apply to the new claims.

Accordingly, Applicants' respectfully request withdrawal of the rejection under 35 U.S.C. § 101.

II. Response to Claim Rejections under 35 U.S.C. § 102

On pages 3 and 4 of the Office Action, claims 26-29, 31-35, 37 and 47-53 are rejected under 35 U.S.C. § 102(b) as being anticipated by Goux et al.

Claims 26-29 and 31-33 are rejected under 35 U.S.C. § 102(b) as being anticipated by Caldwell et al.

The Examiner states that these rejections are raised in view of the amendment to the claims to recite "a baker's yeast product" for the reason set forth above with respect to the carbon dioxide and ethanol being considered as products of baker's yeast. During the Interview, the Examiner indicated that amending the claims to refer to a composition consisting of strains selected from the group consisting of the allowed strains set forth in claims 38-40 would overcome the rejections under 35 U.S.C. § 102.

Applicants respectfully submit that the claims 26-29, 31-35, 37 and 41-53 are amended herein to refer to a "baker's yeast composition". Applicants further submit that these claims recite that the composition is obtainable by a cultivation process comprising using as a starting strain a yeast strain selected from the group consisting of isolated yeast strains CNCM I-2421, CNCM I-2422 and isolated/recombinant baker's yeast strains obtainable by clean activation of PAD1 gene(s) in a strain of a baker's yeast which is resistant to stress caused by freezing. Since the starting strains used to make the claimed composition are allowed the composition is distinguished over the prior art for at least the same reasons. Therefore, the rejection under 35 U.S.C. § 102 is obviated.

New claims 54-65 are directed to a baker's yeast composition comprising yeast strains selected from the group consisting of isolated yeast strains CNCM I-2421, CNCM I-2422 and isolated/recombinant baker's yeast strains obtainable by clean activation of PAD1 gene(s) in a strain of a baker's yeast which is resistant to stress caused by freezing, which are indicated as

allowed strains and therefore the composition comprising said strains is distinguished over the prior art for at least the same reasons.

Accordingly, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 102.

III. Response to Claim Rejections Under 35 U.S.C. § 112, 2nd paragraph

On pages 5-9 of the Office Action, claims 26, 27, 32, 34, 35, 37 and 41-53 are rejected under 35 U.S.C. § 112, 2nd paragraph, as indefinite with respect to the recitations of "good general performances" and "bad tastes or off-flavors" for the reasons of record. Further, the Examiner states that the steps of the process in claims 41-43 and their dependent claims remain incomplete because the claim does not provide a method step that refers back to the preamble of the claim.

With respect to the term "good general performances" the Examiner stated that the results of tests A₁, A₅ and A₆, would be acceptable to overcome the rejection in this regard. As for the issue regarding the process steps in claims 41-43, the Examiner suggested amending the claims to include a final step of providing a baker's yeast product, e.g. ". . . thereby providing a baker's yeast composition".

Claim 26 is amended to include the tests results for tests A₁, A₅ and A₆ indicating good general performances in not-delayed bread making processes as described on page 2, lines 4-11 of the original specification, thereby obviating the rejection.

In regard to the phrase "bad taste or off-flavors in the presence of cinnamon", Applicants respectfully submit that it is disclosed in the present specification that the "bad taste or off-flavors", which are determined by a jury, are caused by the decomposition of cinnamic acid, and can be confirmed by objective analysis as determined by the presence of cinnamic acid and/or the presence of styrene in a solution fermented in the presence of cinnamic acid. See the original specification on page 5, line 29 to page 6, line 2. Further, on page 6, lines 3-18 of the original specification, methods of detecting cinnamic acid and styrene using chromatographic methods are described. Further, it is disclosed in the original specification that the property of not giving rise to "bad taste or off-flavors" is essential for a baker's yeast product and must be verified in any bread making process wherein a baker's yeast product is intended to be used. Page 2, lines 1-3. Thus, those of ordinary skill in the art are familiar with the practices and procedure for determining whether such "bad taste and off-flavors" exists and it is well within the level of skill of the ordinary artisan.

In the course of the process according to the claimed invention, yeast strains may be created that lead to an abnormal or off taste in bread and the corresponding yeast strain is discarded. This occurrence of abnormal or bad taste and off-flavors in bread is due to the production by the yeast affected of one or more secondary metabolites in the bread dough. In this case, as disclosed in the specification, bad taste or off-flavors in the presence of cinnamon are caused by the decomposition of cinnamic acid.

A taste or smell is "bad", "abnormal" or "off" if consumers, as a collective entity, would consider the taste or smell to be abnormal, i.e., alien to the taste or smell of the same type of bread when produced with an industrial baker's yeast strain. Likewise, the person skilled in the art knows the smell and taste profiles of bread types and is able to detect an abnormal or off taste in a bread product, which is alien to the type of bread product.

Further, tests are disclosed for determining the existence of "bad taste and off-flavors" which consist of comparison of the odor of a solution fermented without cinnamic acid with that of a solution fermented in the presence of cinnamic acid. It is disclosed that this test of comparison of odors is based on the notes given by a jury. It is further disclosed that these notes can be confirmed by analysis of the decomposition rate of cinnamic acid by the determination of the cinnamic acid still present at the end of the test and/or by the determination of styrene present in the solution fermented in the presence of cinnamic acid, which can be determined by chromatographic methods known to those of ordinary skill in the art as described. See page 5, line 27 to page 6, line 18. Thus, when properly read in light of the specification, one of ordinary skill in the art would be apprised of the meaning and scope of these terms and the claimed invention.

Claims 41-43 are amended to include a final step of "harvesting to provide said baker's yeast composition" thereby obviating the rejection.

Accordingly, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 112.

IV. Allowed Claims

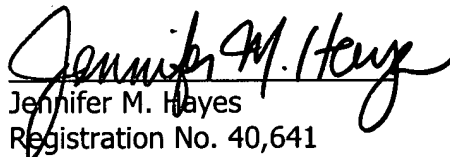
On page 9, claims 38-40 are allowed.

V. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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